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- JAMESTOWN, N. Y.

BOB-WHITE AND SCARCITY OF POTATO BEETLES

BY E. L. MOSELEY

For more than ten years Ohio has protected Bob-white with a closed season, and a great increase in the numbers of these birds may be seen. If we may judge the abundance of the birds by the frequency with which they are observed by human eyes, we would say that Bob-white is now fully twenty times as numerous as when there was an open season. These birds have, however, not only multiplied, but have become so tame that they do not take the trouble to keep out of sight. The apparent increase may be due, therefore, as much to their tameness as to their actual increase. Students in my classes have come to the State Normal College from all counties of northwestern Ohio, and also from other parts of the State. Not one among them knew of any county where the Bob-white had failed to increase in recent years. Most of them would not attempt to estimate the extent of increase: some thought tenfold, others two, three, or fourfold.

For several years past potatoes have been raised successfully on many farms in Ohio without spraying for beetles, or taking any measures to combat the insects. In fact many patches have been practically free from the "bugs." I have never known of the potato grower being so fortunate in previous years. For more than half a century the Colorado potato beetle has been a very serious pest wherever potatoes were raised. Why it should disappear I could not explain. I had wondered if ladybirds, which fed upon the eggs of this beetle, had multiplied; or if some other enemy was holding it in check. The Rose-breasted Grosbeak is so uncommon here that few people ever see one. A captive mole which I fed for some time would not eat potato beetles, either larvae or adults. These insects are not relished by all the birds and mammals that greedily devour white grubs and grasshoppers.

Last year while cutting weeds on the farm where I had first noticed the scarcity of potato beetles, I discovered a Bob-white's nest near the potato patch. I reflected that these birds had probably found breeding places and been numerous near this potato patch for several years. In the city of Sandusky, where Bob-white is presumably uncommon, I had helped a friend in gathering hundreds of beetles from his small patch of potatoes. I decided to make further observations and inquiry.

Close to the much-traveled Chicago Pike I noticed a potato patch badly infested with beetles, while other potato patches which I examined showed few or none. Most of the farmers I talked with reported seeing few potato beetles in recent years. So I enlisted the help of my students in making further observations and inquiries. Below is given a summary of the information thus collected.

Bob-whites have been observed to spend much of the time among the potato vines.

They have been seen to follow a row, picking off the potato beetles.

When the potato patch was located near woodland there was no trouble with the beetles; but when the patch was near the highway or buildings, even on the same farm, the insects were troublesome.

On farms where the Bob-white found nesting sites and protection, the potato vines, if not too near the buildings, were kept free from the insects.

A patch of potatoes surrounded by open fields, without bushes tall weeds, or crops that might shelter the Bob-white, was likely to be infested with beetles.

A farmer living eight miles south of Defiance raised about fifty Bob-whites on his place. During the two years that these birds were there he had no trouble with insects on either potatoes or cabbage. The following autumn a number of the birds were killed by hunters, while others were frightened away. The next summer the potato beetles were back in numbers. The farmer is again raising Bob-whites and protecting them from hunters.

A student coming from Potsdam, in northern New York, reports that they have no Bob-whites, and that potato beetles are plentiful. Another report from western Pennsylvania, where the Bob-white is not as plentiful as in Ohio, potato beetles are still very numerous. E. H. Forbush wrote me from Massachusetts as follows: "When the Bob-whites were most plentiful on my farm they kept the potato beetles in check, so that we did not have to spray at all; and I have heard of several other similar instances."

More recently I have learned from A. F. Conradi, General Manager of the Southern States Chemical Co., Birmingham, Alabama, that in the truck growing regions of the south a greater quantity of arsenical spray (calcium arsenate) is used for potato beetles than for any other insect. He also states they have an open season for shooting the Bob-white.

It has been suggested that this evident scarcity of potato beetles may be due in part to the work of the Hungarian Partridge. It is true that these imported birds have become common on many Ohio farms, and some credit may be due them. But the Bob-white is much more generally distributed, and its habits are much better known: and we are much more inclined to regard this species as the principal cause of the recent scarcity of the potato beetle in Ohio.

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CHIMNEY SWIFTS IN NOVEMBER, 1925

BY OTTO WIDMANN

As it is universally understood that the last Chimney Swift leaves the United States by the first of November, it was a great surprise, when on the afternoon of November 6, 1926, I saw eight swifts hunting up and down low over trees and houses in an outskirt of St. Louis, like in summer. My surprise would not have been so great, if an ordinarily mild October had preceded, but at the end of October and the first two days of November we had seven days of freezing weather. Once (October 30) the temperature was as low as 21° here in the city, and 16° in the county—the lowest temperature of any October day in sixty-two years. The weather was warm on November 3, 60° ; on November 4 and 5, 58° ; and on November 6, 56° ; but where had the swifts been during the freezing days? They could not have found any insect food and probably had spent these cold days and nights in a warm chimney. Passing a week later the same way where I had seen the swifts on the 6th, I found that a high chimney had been built for a parochial school (Santa Rita) in course of construction. This was probably used for a roost, a most suitable place, because fireless and closed at the bottom, therefore draftless and warm. While I saw only eight swifts at three o'clock in the afternoon, there may have been hundreds coming to the roost in the evening, as I was not the only St. Louisan who saw swifts at that time.

In reply to a letter Mr. Luther Ely Smith, President of the St. Louis Bird Club, wrote me: "I recall very vividly on the afternoon